IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Applicant:

Mordechai DEUTSCH et al

Serial No.:

10/561,839

Filed:

June 5, 2006

For:

Improved Materials For Constructing Cell-Chips,

Cell-Chip Covers, Cell-Chip Coats, Processed

Cell-Chips And Uses Thereof

Examiner:

Not Yet Assigned

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450



Group Art Unit: 1744

Attorney

Docket: 30024

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Enclosed is a PTO Form 1449 which lists citations which may be material to the patentability and examination of the above identified application. Also enclosed are copies of the references cited. Sir: These are submitted in compliance with the duty of disclosure defined in 37 CFR 1.56. The Examiner is requested to make these citations of official record in this application.

This Supplemental Information Disclosure Statement under 37 CFR 1.56 is not to be construed as a representation that a search has been made, that additional matter which is material to the examination of this application does not exist, or that any or more of these citations constitutes prior art.

Respectfully submitted,

Martin D. Moynihan Registration No. 40,338

Dated: September 26, 2006



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						Firs	t Named Inventor	Mordechai Dł	EUTSCH et al	
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Sheet		1	of	5		Atte	orney Docket Number	30024		
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	1	US-5,395			03-07-1995		North Ji			
	2	US-6,495			12-17-2002		Huberma			
	3	US-6,495,340			12-17-2002		Huberman et al.			
	5	US-5,854,684			12-29-1998		Stabile et al.			
	6	US-4,894,343			01-16-1990		Tanaka et al.			
	7	US-5,905,031			05-18-1999 03-08-1988		Kuylen et al. Weinreb et al.			
	8	US-4,729,949 US-2003/0032204			03-08-1988		Walt et al.			
	9	US-6,645,757		11-11-2003		Okandan et al.				
	10	US-5,506,141			04-09-1996		Weinreb et al.			
	11	US-2003/0211458		11-13-2003		Sunray et al.				
	12	US-5,272,081			12-21-1993		Weinreb			
	13	US-2005		24	03-24-2005		Deutsch et al.			
	14	US-2004/0235143			11-25-2004		Sasaki et al.			
	15	US-2003/0189850		50	10-09-2003		Sasaki	et al.		
	16	US-2005/0014201		01-20-2005		Deutsch				
	17	US-5,428,451		06-27-1995		Lea e				
	18	US-6,377,721		04-23-2002		Walt et al.				
	19	US-5,059,266		10-22-1991		Yamane et al.				
	20	US-5,204,055		04-20-1993		Sachs et al.				
	21	US-6,046,426			04-04-2000		Jeantette et al.			
	22	US-6,066,285 US-6,117,612			05-23-2000		Kumar Halloran et al.			
	23				09-12-2000		Hallora			
	25	US-6,228			03-27-2001		Schr			
	26	US-6,228			05-08-2001		Yang			
	27	US-6,329			12-11-2001		Pfa			
	28	US-6,333			12-25-2001		Petitte			
	29	US-6,33			01-15-2002		Matangui			
	30	US-6,342			01-29-2002		Chung			
	31	US-6,34			02-05-2002		Webste			
	32	US-6,372			04-16-2002		Naughto			
	33	US-6,370			04-23-2002		Liu e			
	34	US-6,37			04-30-2002		Hungerfo			
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Fike et al.

Wood

05-07-2002

06-11-2002

35

US-6,383,810

US-6,403,369

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Complete if Known Substitute for form 1449A/PTO Application Number 10/561,839 SUPPLEMENTAL INFORMATION Filing Date June 05, 2006 DISCLOSURE First Named Inventor Mordechai DEUTSCH et al STATEMENT BY APPLICANT Art Unit 1744 (use as many sheets as necessary) **Examiner Name** Not yet Assigned 30024 Sheet 2 of Attorney Docket Number **U.S. PATENT DOCUMENTS** Examiner Cite No. 1 Publication Date Name of Patentee or Document Number Pages Columns Lines Where Initials* MM-DD-YYYY Applicant of Cited Document Relevant Passages or Relevant Figures Appear Number-Kind Code² (if known) 37 US-6,410,309 06-25-2002 Barbera- Guillem et al. 07-02-2002 38 US-6,413,744 Morris et al. 39 US-6,413,746 07-02-2002 Field 40 US-6,455,310 09-24-2002 Barbera-Guillem et al. 41 10-15-2002 US-6,465,000 Kim 42 US-6,465,205 10-15-2002 Hicks, Jr. 43 US-6,468,788 10-22-2002 Marotzki 44 Barbera-Guillem et al. US-6,479,252 11-12-2002 45 US-6,489,144 12-03-2002 Lau 46 US-6,492,148 12-10-2002 van Loon et al. 47 US-6,492,163 12-10-2002 Yoo et al. 48 US-6,506,598 01-14-2003 Andersen et al. 49 01-28-2003 US-6,511,430 Sherar et al. 50 US-6,528,286 03-04-2003 Ryll 04-29-2003 Barbera-Guillem et al. 51 US-6,555,365 52 US-6,569,422 05-27-2003 van Loon et al. 53 US-6,588,586 07-08-2003 Abasolo et al. 54 US-6,589,765 07-08-2003 Choi et al. 55 US-6,593,140 07-15-2003 Field 56 08-26-2003 US-6,610,516 Andersen et al. 57 US-6,627,426 09-30-2003 Biddle et al. 58 Bucciarelli et al. US-6,635,448 10-21-2003 59 US-6,642,050 11-14-2003 Goto et al. 60 US-6,649,408 11-18-2003 Bailey et al. 61 US-6,667,034 12-23-2003 Palsson et al. 62 US-6,670,180 12-30-2003 Block 63 US-6,670,184 12-30-2003 Chiarello et al. US-6,673,591 01-06-2004 64 Lau 65 US-6,686,190 02-03-2004 Lau 66 US-6,689,594 02-10-2004 Hänni et al. US-6,692,961 02-17-2004 67 Judd et al.

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Harrison et al.

Huberman et al.

Wolf et al.

DeSilets et al.

10-14-2003

08-08-2002

01-13-1998

12-19-2002

68

69

70

71

US-6,632,619

US-5,707,869

US-2002/0106715

US-2002/0189374

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. this collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of commerce, P.O. Box 1450, Alexandria, VA 22313-1450, DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

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		FOREIGN	PATENT DOC	UMENTS			
		Foreign Patent Documents			e of Patentee or of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T 6
	77	Country Code ³ Number ⁴ Kind Code ³ (if known) PCT WO 99/47922	09-23-1999 Griffith e		t al		╁╌
	78	JP 2005-102628	04-21-2005	Yamamura et al.			1
	79	EP 1566635	08-24-2005	Muraguel			+
	80	PCT WO 2005/069001	07-28-2005	Muraguchi et al.			\dagger
	81	PCT WO 2004/077009	09-10-2004	Deutsch			\dagger
	82	PCT WO 98/35223	08-13-1998	Kamentsl	ky et al.		T
	83	PCT WO 98/15356	04-16-1998	Gordon			\top
	84	PCT WO 99/45357	09-10-1999	Walt et al.			T
-	85	PCT WO 01/35071	05-17-2001	Braff et al.			T
	86	PCT WO 03/056330	07-10-2003	Lassner et al.			\Box
	87	PCT WO 02/26114	04-4-2002	Bitensky et al. Wang et al.			
	88	PCT WO 03/011451	02-13-2003				П
	89	PCT WO 02/063034	08-15-2002	Huberman et al.			
	90	PCT WO 01/88176	11-22-2001	Sunray et al.			
	91	PCT WO 2006/003664	01-12-2006	Deutsch et al.			
	92	PCT WO 2006/021959	02-2-2006	Deutsch et al.			\Box
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Initials	No.1		I/or country where published.		T ²								
	93	Dolbeare "Fluorescent Staining of Enzymes for Flow Cytometry", Methods Cell											
	 	Biol., 33(Chap.8): 81-88, 1990. Klingel et al. "Flow Cytometric Determination of Serine Proteinase Activities in											
	94												
		Living Cells With Rhodamine 110 Substrates", Methods Cell Biol., 41(Chap.29): 449-460, 1994.											
	95	Malin-Berdel et al. "Flow Cytometric Determination of Esterase and Phosphatase											
	1	Activities and Kinetics in Hematopoietic Cells With Fluorogenic Substrates",											
		Cytometry, 1(3): 222-228, 1980.	8	,									
	96	Nooter et al. "On-Line Flow Cytometr	v. A Versatile Method for	Kinetic									
		Measurement", Methods Cell Biol., 41(Chap.32): 509-526, 1994.											
	97	Turek et al. "Leucine Aminopeptidase Activity by Flow Cytometry", Methods Cell											
		Biol., 41(Chap.30): 461-468, 1994.											
	98	Watson et al. "Enzyme Kinetics", Methods Cell Biol., 41: 469-508, 1994.											
	99	Bedner et al. "Enzyme Kinetics, Methods Cell Biol., 41: 403-308, 1934. Bedner et al. "Enzyme Kinetic Reactions and Fluorochrome Uptake Rates Measured											
		in Individual Cells by Laser Scanning Cytometry", Cytometry, 33(1): 1-9, 1998. Abstract, P.2, Col.1, §4 - Col.2, §1, P.8, Col.2, §2.											
	100	Sunray et al. "Cell Activation Influences Cell Staining Kinetics", Spectrochimica Part											
	100	A, 53: 1645-1653, 1997.											
	101	Eisenthal et al. "Infection of K562 Cells With Influenza A Virus Increases Their											
	101	Susceptibility to Natural Killer Lysis", Pathobiology, 65: 331-340, 1997.											
	102	Deutsch et al. "Apparatus for High-Precision Repetitive Sequential Optical											
	102	Measurement of Living Cells", Cytom		· F									
	103	Sunray et al. "Determination of the Michaelis-Menten Constant (Km) of Intracellular											
	1 103	Enzymatic Reaction for Individual Live Lymphocytes", Cytometry Supplement, 10:											
		68-69, & The XX Congress of the International Society for Analytical Cytology,											
		Montpellier, F, 2000.	,	,,									
	104												
	101	Many Applications", Experimental Co	ell Research. 249(1): 1-12.	1999. Abstract. P.2.									
		Col.2, §4 - P.4, Col.2, §2, P.8, Col.1,	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,										
	105	Sunray et al. "The Trace and Subgrou		ation by Dynamic									
	1.05	Fluorescence Intensity and Polarization											
		Biophysical Research Communication											
		Col.1, §5, Col.2, §7 - P.714, Col.2, §1											
	106	Sunray et al. "Determination of Indivi	idual Cell Michaelis-Mente	en Constants"									
	100	Cytometry, 47(1): 8-16, 2002.	dadi Con mionaciis mont	,, ,									
	107	Dive et al. "Improved Methodology for	or Intracellular Enzyme Re	action and Inhibition									
	107	Kinetics by Flow Cytometry", Cytom											
		8(6): 552-561, 1987.	on y comming of society for										

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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STATEMENT BY APPLICANT					Group Art Unit	1744				
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Initials	No.1	item (book, magazine, journal, serial symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.								
	108	Lansing Taylor et al. "Real-Time Molecular and Cellular Analysis: The New Frontier of Drug Discovery", Current Opinion in Biotechnology, 12: 75-81, 2001.								
	109	Aplin et al. " Protein-Derivatised Glass Coverslips for the Study of Cell-to-Substratum Adhesion", Analytical Biochemistry, 113: 144-148, 1981.								
	110	Burlage et al. "Living Biosensors for the Management and Manipulation of Microbial Consortia", Annual. Rev. Microbiol., 48: 291-309, 1994.								
	111	Mrksich et al. "Using Self-Assembled Monolayers to Understand the Interactions of Man-Made Surfaces With Proteins and Cells", Annual Reviews in Biophysics and								
	112	Biomolecular Structure, 25: 55-78, 1996. Singhvi et al. "Engineering Cell Shape and Function", Science, 264: 696-698, 1994.								
	113	Riedel et al. "Arxula Adeninivorans Based Sensor for the Estimation of Bod", Analytical Letters, 31(1): 1-12, 1998.								
	114	Simonian et al. "Microbial Biosensors Based on Potentiometric Detection", Methods in Biotechnology,6, chapter 17: 237-248, 1998.								
	115	Arikawa et al. "Microbial Biosensors Based on Respiratory Inhibition", Methos in Biotehnology, 6, chapter 16: 225-235, 1998.								
	116	Yamamura et al. "Single-Cell Microarray for Analyzing Cellular Response", Analytical Chemistry, 77(24): 8050-8056, 2005.								
		Analytical	Chemistry	, //(24): 8050-805	6, 2003.					
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